

perhaps in New Hampshire and northern Maine, it should be looked for with reasonable chance of success.

It seems to have no very marked soil preference. Mr. Alexander Cowan, of Scotland, writes me regarding its habit in that country, "*L. filix-mas*—grows equally well in different soils and in shade or sun," but later he adds, "if growing in shade they prefer light overhead—that is, shaded only from the direct rays of the sun." This describes very well the habit of the fern in Vermont.

The hybrid *D. filix-mas* × *marginalis* has been found in three of the earlier Vermont stations for the Male Fern, and at Northfield it is very abundant.

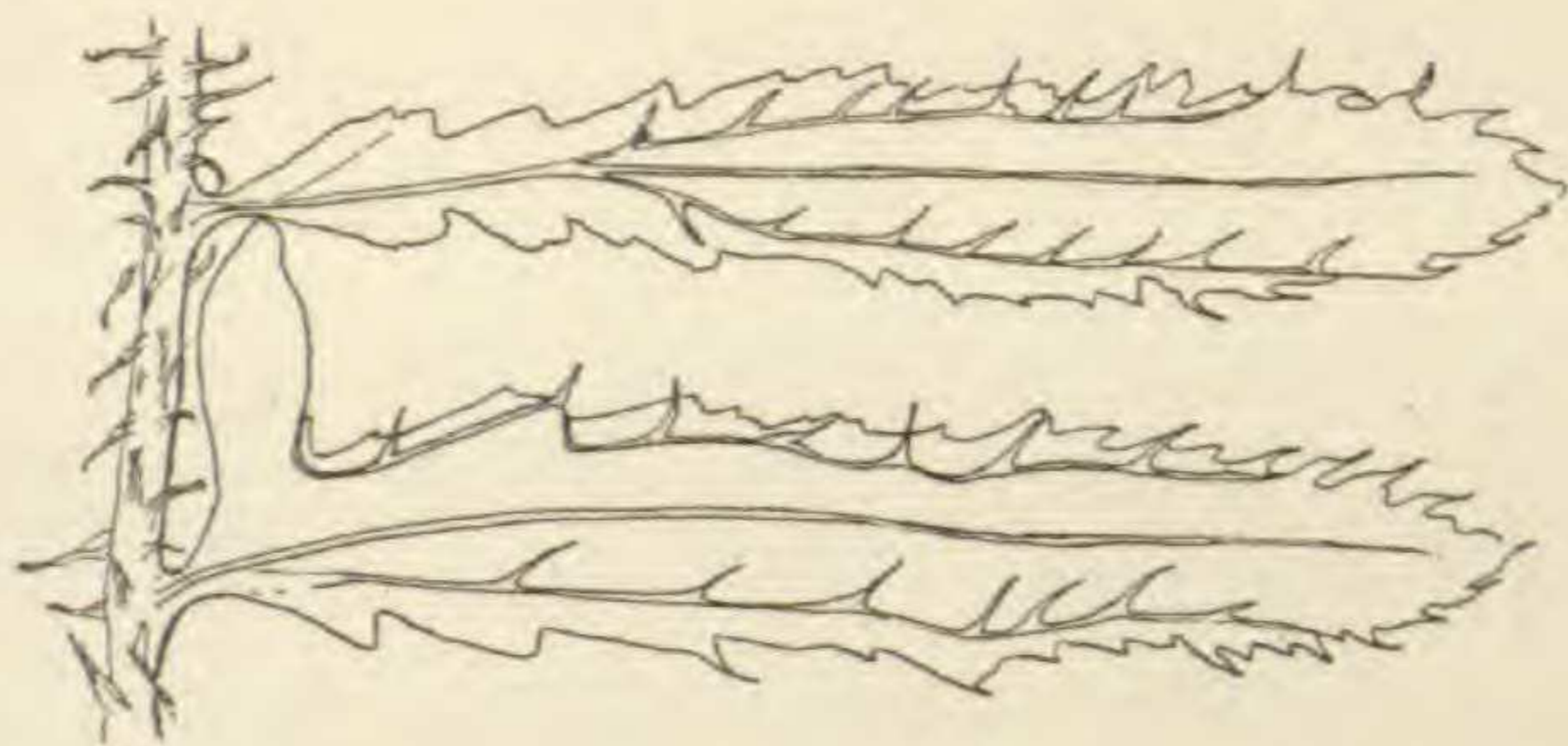
The ferns seen in Northfield and vicinity make a list of 34 species, including the *Ophioglossaceae*, and including *Woodsia ilvensis*, which Prof. Shaw has recently added to the list. Some of the more interesting are: *Botrychium angustisegmentum* and *Asplenium Trichomanes* collected in the neighboring town of Roxbury; *Ophioglossum vulgatum*, abundant and varied in some of the wet pastures; *Polystichum Braunii*, in rich woods mostly below 2000 feet; *Dryopteris Goldiana*, very abundant in some localities and sometimes accompanied by *Athyrium angustifolium*. The Polypod was seen but once, on a ledge near the river shore. The hillside pastures are very wet and springy and the Ostrich Fern grows well up to the 2000 foot line.

AUBURNDALE, MASS.

Notes and News

CONCERNING *POLYSTICHUM ACROSTICHOIDES*, FORM *LANCEOLATUM*. The other day, in looking over a file of the *Fern Bulletin*, I came across Prof. Clute's description of this form (in Vol. 20, p. 24) and was at once reminded of a queer Christmas fern which I had found in Bloomfield, Conn., in 1908. My specimens have

pinnae with irregular teeth, largest toward the base, and with three prominent veins, as described by him, but differ in having about half the pinnae auricled on the upper side, as in the typical form, and possess one peculiar character which he does not mention. The lateral veins bear a number of broad-based bristles, 1-2 mm. long, which, in the living plant, stand up at right angles to the plane of the pinnae and are similar in size and structure to those which occur at the points of the teeth in normal fronds. The marginal teeth are mostly, but not always, without bristles. The accom-



POLYSTICHUM ACROSTICHOIDES, F. LANCEOLATUM

panying sketch, which is about life-size, shows these characters.

Dr. E. H. Eames writes me that his specimens of the original collection of forma *lanceolatum* show the same peculiarities: Prof. Clute's description should, therefore, be amended and expanded to include them.

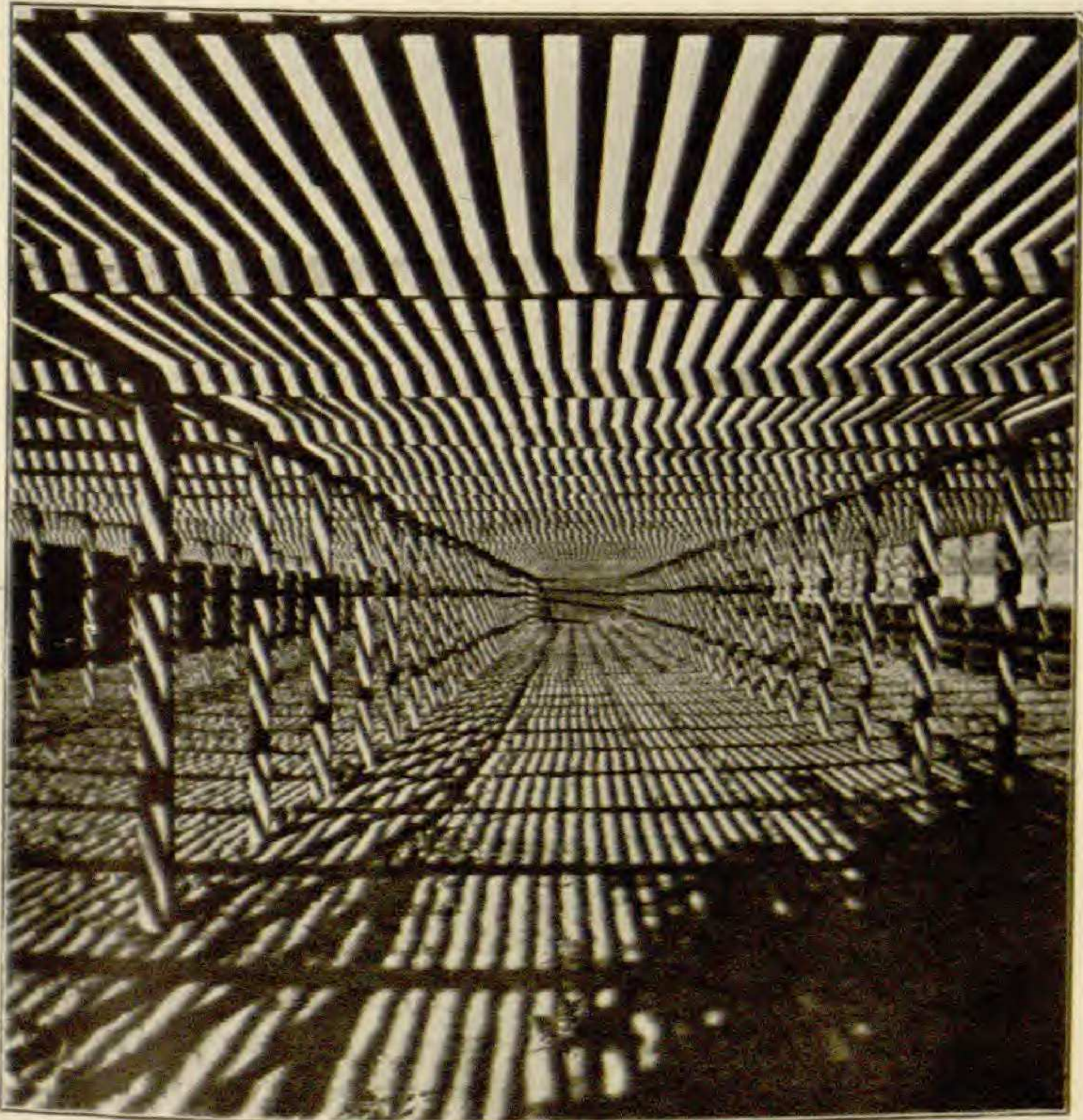
There was only a single plant at my station. I intended to revisit it and observe it further, but, owing to absence from home during several consecutive summers, it was some years before I got there again. Then I found that the woods in the edge of which the plant had grown had been cut down and the plant itself had disappeared.

C. A. W.

GROWING FERNS FOR CUT LEAVES.—It is a truism to say that the majority of ferns require shade for successful growth. Probably less than one per cent of all fern species, the number of which is estimated at from five to ten thousand, thrive in full sun. What native species if any produce their best leaves without a particle of shade?

The illustration which represents a new adventure in the kind of fern for which it is intended, is the florists' method of providing the proper shade on a commercial scale. The photograph was taken in Orlando, Florida, on the establishment of Mr. F. W. Fletcher. The structure is what is known as a lath house and is in common use in Florida for the Boston fern and varieties as these ferns do not require greenhouse protection, at least in the warmer parts of that state. In the north lath houses are used for hardy ferns by a number of growers. In greenhouses the proper shade is provided by a summer coating of white or green paint.

The present lath house is of particular interest to the Fern Society because it is Mr. Fletcher's intention to grow ferns for cut leaves. *Polystichum adiantiforme*, often called *P. coriaceum*, will be one of the ferns tried. This fern has a thick tough leathery leaf, well deserving its common technical name, *coriaceum*. Its leaf will keep its shape and freshness, even without water, much longer than the common native species which are pulled in such quantities, *Dryopteris intermedia* and *D. marginalis*, and *Polystichum acrostichoides*. It is not quite as dainty as *D. intermedia*, but has an attractive thrice pinnate leaf with glossy segments, something on the style of the sterile part of *Botrychium silaifolium*, and if it can be developed as a commercial success, we may hope eventually for some diminution of the demand for the so-called "fancy" and "dagger" ferns from our northern woods. Other ferns will also be grown for



LATH HOUSE FOR GROWING FERNS, AT ORLANDO, FLA.
(Reprinted here by courtesy of the *Florists' Exchange*)

their leaves including the kinds which bring high prices for single leaves to which reference has been made in previous issues of the JOURNAL.

R. C. B.

Dr. Abel J. Grout has recently published a "Moss Flora of New York City and Vicinity." (Published by the author, New Dorp, N. Y., Oct., 1916.) The flora covers all the counties of New York and New Jersey contiguous to the New York City, and all of Long Island as well, and comprises one hundred and twenty-one pages with twelve fine half-tone plates. A classification and key to moss families, and under each family, keys to the genera and species with descriptions of the genera and notes on the distribution and habitat of each species commend the book as a manual for practical use.

R. C. B.

Connecticut, which long ago passed the first law to protect a fern, has made a move toward the conservation of wild ferns which have commercial value. At the last session of the legislature, a bill was introduced which required that every package or bale of "florists' greens"—which, of course, means ferns—shipped in the state must be tagged with the name of the person from whose land the greens were taken, and that the shipper must file a statement showing that he had permission to take them. In the case of carriage by automobile or other vehicle, the driver was required to have such a statement in his possession. The bill had the support of the State Forester and the State Experiment Station; it passed one house of the legislature, but unfortunately failed of passage in the other. Its reappearance at future sessions is to be hoped for.

Such a law would not interfere with legitimate business; it would not, of course, prevent any short-sighted person from exterminating the ferns on his land—that seems to be regarded as a natural right. But it would tend to stop irresponsible parties, who have not the same interest as an owner in keeping up a continuous crop, from helping themselves. It is a move in the right direction; and should be called to the attention of the authorities in all states where the fern-picking industry is carried on.

In a recent letter to *Science*, Professor Clute suggests that there ought to be some way of “distinguishing individuals who have attained eminence in their respective lines” of scientific work, regardless of whether they hold a doctor’s degree or not. Probably men who do good work find the recognition of it which they value most in the respect and admiration of their colleagues, whether it be formally expressed or not; and this, we may believe, they rarely miss. Moreover, men who attain especial distinction commonly receive recognition in the shape of honorary degrees. Nevertheless, the suggestion is interesting, and it might be a very good thing if some central representative bodies, such as the sections of the American Association, could be empowered to give honorable mention to deserving work.

Prof. Breckenridge writes as follows in regard to his specimens of *Onoclea sensibilis*, forma *obtusilobata*, two of which were illustrated in a recent number of the JOURNAL:

“I picked at least a dozen . . . specimens of *obtusilobata* in Monkton, Vermont. . . . They were picked about the middle of July. When I picked them

I was impressed by the fact that they grew in among thousands of the regular type of this fern, but there was no indication of any cutting having been done for years at that particular location. I said right away that these specimens could not have been the result of damage or cutting. As far as my observation goes, these are the only specimens I have gathered that do not appear to have been formed by injury to early plants. I feel very sure these could not have been the result of such early cutting or injury."

American Fern Society

A joint meeting of American Fern Society members and members of the Appalachian Mountain Club was held in the rooms of the latter organization in the Tremont Building, Boston, during the day and evening of May 12th. Ferns were exhibited by Mr. R. A. Ware, of Boston; Miss Stella May, of Gloucester; Miss M. A. Marshall, of Still River; and Miss F. E. Corne, of Cambridge.

At the evening session the principal speakers were Prof. Geo. F. Freeman, University of Arizona, Tucson, Ariz., and Prof. Frederic K. Butters, University of Minnesota, Minneapolis, Minn. As Mr. Rugg was down from Dartmouth College, at least four states were represented. Prof. Freeman gave a very entertaining as well as instructive talk on "Some Natural Features of the State of Arizona." Prof. Butters spoke on the Lady Fern and illustrated by numerous specimens the various forms that are grouped under this common name. Prof. Butters has made a careful study of this group as it is represented in the different parts of North America, and has reached several conclusions which are new and interesting. E. J. Winslow exhibited speci-